

LISTING OF CLAIMS:

1. (Original) An electronic timepiece comprising:
 - an external input unit for receiving an external input signal;
 - a displaying section for displaying time;
 - a battery capable of charging;
 - a drive unit for driving the displaying section using with electrical power stored in the battery;
 - a comparator unit for comparing voltage stored in the battery with a reference voltage,
 - a discharge control unit for starting discharge of the battery when an external input signal ordering start of discharge start is input with the external input unit, and for stopping the discharge when comparison result by the comparator unit satisfies a discharge stop condition.
2. (Original) An electronic timepiece according to claim 1,
 - wherein the discharge control unit resumes discharge from the battery when the comparison result by the comparator unit becomes unsatisfying to the discharge stop condition.
3. (Original) An electronic timepiece according to claim 2,
 - wherein the discharge control unit, when a predetermined external signal is received by the external input unit, starts discharge from the battery in a first discharge method, and when the comparison result by the comparator unit satisfies the discharge stop condition, stops discharge from the battery, and starts discharge from the battery in a second discharge method in which discharge rate is lower than that of the first discharge method.
4. (Original) An electronic timepiece according to claim 1, further comprising a discharge unit which forms a closed circuit with the battery, and conducts a discharge current which flows through the closed circuit and lowers voltage stored on the battery.
5. (Original) An electronic timepiece according to claim 1,

wherein the discharge control unit executes the discharge from the battery by controlling the drive unit to drive the display section.

6. (Original) An electronic timepiece according to claim 1,

wherein the displaying section comprises an electric motor and a rolling system driven by the electric motor to change display of the displaying section, and,

the discharge control unit executes the discharge from the battery by controlling the drive unit to fast-forward the rolling system of the displaying section.

7. (Original) An electronic timepiece according to claim 1, further comprising a charging state judge unit for controlling the drive unit to drive the displaying section into a first displaying state when a predetermined external signal is received by the external input unit, and for controlling the drive unit to drive the displaying section into a second displaying state which is different from the first displaying state when comparison result by the comparator unit becomes satisfying to a predetermined condition.

8. (Original) An electronic timepiece according to claim 1,

wherein the displaying section comprises an electric motor and a rolling system driven by the electric motor and changing display of the displaying section, and

the electronic timepiece further comprises:

a charging state judge unit for controlling the drive unit to drive the displaying section into a first displaying state when a predetermined external signal is received by the external input unit, and for controlling the drive unit to drive the displaying section into a second displaying state which is different from the first displaying state when the comparison result by the comparator unit becomes satisfying to a predetermined condition,

a trouble detecting unit for detecting a drive trouble of the electric motor, and,

a drive trouble judge unit for controlling the drive unit to drive the displaying section into a third displaying state when a predetermined external

signal is received by the external input unit, and for controlling the drive unit to drive the displaying section into a fourth displaying state which is different from the third displaying state when a drive trouble is detected by the trouble detecting unit.

9. (Original) An electronic timepiece comprising:

- an external input unit for receiving an external input signal;

- a displaying section for displaying time;

- a battery capable of charging;

- a drive unit for driving the displaying section by use of electrical power stored in the battery;

- a comparator unit for comparing voltage stored on the battery or a voltage corresponding to the voltage with a reference voltage; and

- a charging state judge unit for controlling the drive unit to drive the displaying section into a first displaying state when a predetermined external signal is received by the external input unit, and for controlling the drive unit to drive the displaying section into a second displaying state which is different from the first displaying state when the comparison result by the comparator unit becomes satisfying to a predetermined condition;

10. (Original) An electronic timepiece according to claim 9,

- wherein the charging state judge unit for controlling the drive unit to drive the displaying section into the first displaying state when the comparison result by the comparator unit becomes satisfying to a predetermined condition and then becomes unsatisfying to the predetermined condition.

11. (Original) A check method for an electronic timepiece comprising:

- an external input unit for inputting an external input;

- a displaying section for displaying time;

- a battery capable of charging;

- a drive unit for driving the displaying section by use of electrical power stored in the battery;

- a comparator unit for comparing a voltage stored on the battery or a voltage corresponding to the voltage with a reference voltage;

a discharge control unit for starting discharge of the battery when a first external input ordering a discharge start is received by the external input unit, and for stopping the discharge from the battery when the comparison result by the comparator unit becomes satisfying to a discharge stop condition; and

a charging state judge unit for controlling the drive unit to drive the displaying section into a first displaying state when a second external signal is received by the external input unit, and for controlling the drive unit to drive the displaying section into a second displaying state which is different from the first displaying state when the comparison result by the comparator unit becomes satisfying to a predetermined condition,

the method comprising:

a first step of controlling the voltage stored on the battery by giving the first external input signal from the external input unit and thereby starting the operation of the discharge control unit;

a second step of judging the voltage stored on the battery or a voltage corresponding to the voltage from the displaying state of the displaying section by giving the second external input signal to the external input unit and thereby starting the operation of the charging state judge unit.

12. (Original) A check method according to claim 11,

wherein the external input unit comprises a first and a second switch for adjusting time on the displaying section,

in the first step the first external input signal is generated by operation to the first switch,

in the second step the second external input signal is generated by operation to the second switch, and,

during or after the second step time is adjusted with the first switch.

13. (Original) A check method for an electronic timepiece comprising:

an external input unit for receiving an external input signal;

a displaying section for displaying time, the displaying section including an electric motor and a rolling system driven by the electric motor and changing display of the displaying section;

a battery capable of charging;

a drive unit for driving the motor of the displaying section using with electrical power stored in the battery;

a comparator unit for comparing voltage stored in the battery with a reference voltage;

a discharge control unit for starting discharge of the battery when an external input signal ordering start of discharge start is input with the external input unit, and for stopping the discharge when comparison result by the comparator unit satisfies a discharge stop condition;

a charging state judge unit for controlling the drive unit to drive the displaying section into a first displaying state when a predetermined external signal is received by the external input unit, and for controlling the drive unit to drive the displaying section into a second displaying state which is different from the first displaying state when the comparison result by the comparator unit becomes satisfying to a predetermined condition;

a trouble detecting unit for detecting a drive trouble of the electric motor;
and

a drive trouble judge unit for controlling the drive unit to drive the displaying section into a third displaying state when a predetermined external signal is received by the external input unit, and for controlling the drive unit to drive the displaying section into a fourth displaying state which is different from the third displaying state when a drive trouble is detected by the trouble detecting unit,

the method comprising the steps of:

a first step of starting the operation of the discharge control unit, and controlling the voltage of the stored electricity of the battery by using an input of a first prescribed external signal as a start condition;

a second step of starting the operation of the charging state judge unit, and controlling the displaying state of the displaying section in accordance with the voltage of the stored electricity of the battery by using an input of a second prescribed external signal as a start condition; and

a third step of starting the operation of the drive trouble judge unit, and controlling the displaying state of the displaying section based on the detection result of the drive trouble of the electric motor by using an input of a third prescribed external signal as a start condition.

14. (Original) A check method for the electronic timepiece according to claim 13,

wherein the external input unit comprises a first and a second switch for adjusting time on the displaying section,

the first external input signal is generated by operation to the first switch,

the second external input signal is generated by operation to the second switch, and,

during or after the second step time is adjusted by the first switch.

15. (Original) An electronic timepiece comprising:

an external input unit for receiving an external input signal;

a notification unit for notifying a user;

a battery capable of charging;

a comparator unit for measuring the voltage of the stored electricity in the battery and comparing the voltage with a reference voltage;

a charge state judge unit for controlling a notification state of the notification unit to a first state when a predetermined external signal with the external input unit is input, and for controlling a notification state of the notification unit to a second state which is different from the first notification state when after the first state the battery unit is charged and the comparison result by the comparator unit becomes satisfying to a predetermined condition.

16. (Original) An electronic timepiece comprising:

an external input unit for receiving an external input signal;

a notification unit for notifying a user;

a battery capable of charging;

a comparator unit for measuring the voltage of the stored electricity in the battery and comparing the voltage with a reference voltage;

a discharge control unit for starting discharge when a predetermined external input is input with the external input unit, and for stopping discharge from the battery when the comparison result by the comparator unit becomes satisfying to a discharge stop condition; and

a charge state judge unit for controlling a notification state of the notification unit to a first state when a predetermined external signal with the external input unit is input, and for controlling a notification state of the notification unit to a second state which is different from the first notification state when after the first state the battery unit is charged and the comparison result by the comparator unit becomes satisfying to a predetermined condition.

17. (Original) An electronic timepiece according to claim 16,

wherein the charge state judge unit controls a notification state of the notification unit to the first state when the comparison result by the comparator unit becomes satisfying to a predetermined condition, and then becomes unsatisfying to a predetermined condition.

18. (Original) An electronic timepiece comprising:

an external input unit for receiving an external input signal;

a notification unit for notifying a user comprising a displaying section with a rolling system by an electric motor;

a battery capable of charging;

a comparator unit for measuring the voltage of the stored electricity in the battery and comparing the voltage with a reference voltage;

a discharge control unit for starting discharge when a predetermined external input is input with the external input unit, and for stopping discharge from the battery when the comparison result by the comparator unit becomes satisfying to a discharge stop condition;

a charge state judge unit for controlling a notification state of the notification unit to a first state when a predetermined external signal with the external input unit is input, and for controlling a notification state of the notification unit to a second state which is different from the first notification

state when after the first state the battery unit is charged and the comparison result by the comparator unit becomes satisfying to a predetermined condition;

a trouble detecting unit for detecting a drive trouble of the electric motor;
and

a drive trouble judge unit for controlling a notification state of the notification unit into a third state when a predetermined external signal is input with the external input unit, and for controlling the notification state of the notification unit into a fourth state which is different from the third state when a drive trouble is detected by the trouble detecting unit.

19. (Currently Amended) An electronic timepiece comprising:

an external input unit for receiving an external input signal;
a displaying section for displaying time comprising a rolling system by an electric motor;

a notification unit for notifying a user;
a battery-capable-of-charging;
a trouble detecting unit for detecting a drive trouble of the electric motor;
and

a drive trouble judge unit for controlling a notification state of the notification unit into a first state when a predetermined external signal is input with the external input unit, and for controlling the notification state of the notification unit into a second state which is different from the first state when a drive trouble is detected by the trouble detecting unit.

20. (Currently Amended) An electronic timepiece comprising:

an external input unit for inputting an external input signal;
a displaying section for displaying time comprising a rolling system by an electric motor;

a battery-capable-of-charging;
a drive unit for driving the displaying section by use of electrical power stored in the battery;
a trouble detecting unit for detecting a drive trouble of the electric motor;
and

a drive trouble judge unit for controlling a ~~notification state of the notification unit display state of the displaying section~~ into a first state when a predetermined external signal is input with the external input unit, and for controlling the ~~notification state of the notification unit display state of the displaying section~~ into a second state which is different from the first state when a drive trouble is detected by the trouble detecting unit.

21. (Original) A check method for an electronic timepiece comprising:

an external input unit for receiving an external input signal;

a notification unit for notifying a user;

a battery capable of charging;

a comparator unit for measuring the voltage of the stored electricity in the battery and comparing the voltage with a reference voltage;

a discharge control unit for starting discharge when a predetermined external input is input with the external input unit, and for stopping discharge from the battery when the comparison result by the comparator unit becomes satisfying to a discharge stop condition; and

a charge state judge unit for controlling a notification state of the notification unit to a first state when a predetermined external signal with the external input unit is input, and for controlling a notification state of the notification unit to a second state which is different from the first notification state when after the first state the battery unit is charged and the comparison result by the comparator unit becomes satisfying to a predetermined condition,

the method comprising the steps of:

a first step of starting the operation of the discharge control unit, and controlling the voltage of the stored electricity of the battery by using an input of a first prescribed external signal as a start condition; and

a second step of starting the operation of the charging state judge unit, and controlling the notification state of the notification unit in accordance with the voltage of the stored electricity of the battery by using an input of a second prescribed external signal as a start condition.

22. (Original) A check method for an electronic timepiece comprising:

an external input unit for receiving an external input signal;

a notification unit for notifying a user comprising a displaying section with a rolling system by an electric motor;

a battery capable of charging;

a comparator unit for measuring the voltage of the stored electricity in the battery and comparing the voltage with a reference voltage;

a discharge control unit for starting discharge when a predetermined external input is input with the external input unit, and for stopping discharge from the battery when the comparison result by the comparator unit becomes satisfying to a discharge stop condition;

a charge state judge unit for controlling a notification state of the notification unit to a first state when a predetermined external signal with the external input unit is input, and for controlling a notification state of the notification unit to a second state which is different from the first notification state when after the first state the battery unit is charged and the comparison result by the comparator unit becomes satisfying to a predetermined condition;

a trouble detecting unit for detecting a drive trouble of the electric motor;
and

a drive trouble judge unit for controlling a notification state of the notification unit into a third state when a predetermined external signal is input with the external input unit, and for controlling the notification state of the notification unit into a fourth state which is different from the third state when a drive trouble is detected by the trouble detecting unit,

the method comprising the steps of:

a first step of starting the operation of the discharge control unit, and controlling the voltage of the stored electricity of the battery by using an input of a first prescribed external signal as a start condition,

a second step of starting the operation of the charging state judge unit, and controlling the notification state of the notification unit in accordance with the voltage of the stored electricity of the battery by using an input of a second prescribed external signal as a start condition, and,

a third step of starting the operation of the drive trouble judge unit, and controlling the notification state of the notification unit based on the detection result of the drive trouble of the electric motor by using an input of a third prescribed external signal as a start condition.

23. (Original) An electronic timepiece comprising:

an external input unit for receiving an external input signal;

a notification unit for notifying a user of prescribed information including time comprising a displaying section with a rolling system by an electric motor;

a battery capable of charging;

a drive unit for driving the notification unit by use of electrical power stored in the battery;

a comparator unit for comparing voltage of the stored electricity in the battery with a reference voltage;

a discharge control unit for starting discharge when a predetermined external input is input with the external input unit, and for stopping discharge from the battery when the comparison result by the comparator unit becomes satisfying to a discharge stop condition;

a trouble detecting unit for detecting a drive trouble of the electric motor;
and

a drive trouble judge unit for controlling a notification state of the notification unit into a first state when a predetermined external signal is input with the external input unit, and for controlling the notification state of the notification unit into a second state which is different from the first state when a drive trouble is detected by the trouble detecting unit.

24. (Original) An electronic timepiece comprising:

an external input unit for receiving an external input signal;

a notification unit for notifying a user of prescribed information including time comprising a displaying section with a rolling system by an electric motor;

a battery capable of charging;

a drive unit for driving the notification unit by use of electrical power stored in the battery;

a comparator unit for comparing voltage of the stored electricity in the battery with a reference voltage;

a charge state judge unit for controlling a notification state of the notification unit to a first state when a predetermined external signal with the external input unit is input, and for controlling a notification state of the notification unit to a second state which is different from the first notification state when after the first state the battery unit is charged and the comparison result by the comparator unit becomes satisfying to a predetermined condition;

a trouble detecting unit for detecting a drive trouble of the electric motor;
and

a drive trouble judge unit for controlling a notification state of the notification unit into a third state when a predetermined external signal is input with the external input unit, and for controlling the notification state of the notification unit into a fourth state which is different from the third state when a drive trouble is detected by the trouble detecting unit.